

**A MAGNETIC WRITE ELEMENT HAVING A WELL DEFINED COIL WALL
STRUCTURE AND A METHOD OF MANUFACTURING THE SAME**

ABSTRACT OF THE INVENTION

The present invention provides a magnetic write element for use in a magnetic data recording system such as a disk drive. The invention provides a method of manufacturing a well defined coil, which avoids the problem of shallow wall angle problems exhibited by prior art methods due to coil mask shrinkage during high temperature bake. A series of trenches are provided in the coil mask, the trenches being shallower than the coil pattern, and not extending completely through the coil pattern. During the high temperature baking process shrinkage of the coil mask will be absorbed by the trenches and not transferred to the coil pattern, preventing deformation of the coil wall portion of the mask.